

Title (en)  
OPTICAL MULTIPLEXER AND DEMULTIPLEXER

Title (de)  
OPTISCHER MULTIPLEXER UND DEMULTIPLEXER

Title (fr)  
MULTIPLEXEUR-DEMUTIPLEXEUR OPTIQUE

Publication  
**EP 1468317 B1 20080604 (EN)**

Application  
**EP 02765107 A 20021008**

Priority  
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Abstract (en)  
[origin: WO03036353A2] An optical multiplexer and demultiplexer (mux-demux) (100) comprises a multimode waveguide (126) which communicates with first (122) and second (124) coupling waveguides. Multiplexed optical radiation comprising individual wavelength channels of appropriate wavelength introduced into the input waveguide is demultiplexed by means of modal dispersion and inter-modal interference within the multimode waveguide. The mux-demux consists of merely of waveguides and is therefore simple to fabricate and integrate with other components in integrated optical systems, and is capable of resolving channels having a small (SIMILAR 1nm) wavelength spacing. The mux-demux may be used without modification as a demultiplexer and remains of simple construction when scaled up to operate with many channels.

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